



# **JAG**

Joint Action Group for  
Environmental Clean-Up of the  
Muggah Creek Watershed

# **EDGAR**

**Environmental  
Data Gathering  
and Research  
Working Group**

*Working towards the Remediation of the  
Muggah Creek Watershed*

## **Our mission:**

To collect and interpret  
enough information about  
the Sites to know what,  
where and how much  
contamination needs to be  
cleaned up and to set up  
the required Sites' infrastructure so remediation  
can proceed safely.



## Quick Facts

- The contamination of the Muggah Creek Watershed, located near downtown Sydney and nearby residential areas, is the result of about 100 years of a variety of industrial activities.
- The Muggah Creek Watershed is about 24 square kilometers and encompasses the Tar Ponds, the former Coke Ovens Sites and the Municipal, Ash and Industrial Disposal site (MAID).
- The Tar Ponds represents roughly 11% of the amount of 'potentially' contaminated sediments of the Sites that may need remediation.

## Our vision:

- Develop a complete hydrogeological model of the Sites where all contaminants and pathways are known and understood in order to provide a sound basis for a remediation decision.

## Goals:

- To outline the types and amount of contamination of the Muggah Creek Watershed, determine how and where the contaminants are displaced, identify the biological receptors at risk and conduct ecological and human health risk assessments.
- To complete the demolition, disposal (and/or salvage) of the remaining structures and surface material on the Coke Ovens sites.
- To set up an effective 'air monitoring' system for future demolition and remediation activities;
- To develop controls for surface water and streams crossing the Sites.
- To provide technical inputs to the completion of the Tar Ponds leg of the 'Sewer Collector'.
- To design the criteria and implement separation zones for potentially affected adjacent Sites areas.
- To develop a long term data management system (GIS Database To develop a long term data management system (GIS Database) suitable for all workgroup needs.
- To determine and assess "Input and Output" zones.
- To complete the analysis of the MAID Leachate and appropriate support for containment measures.

# Why we do what we do....

We are sometimes asked: "Why waste time doing more studies when there have already been so many done?"

The answer: there is no quick and easy solution to this environmental problem. The Muggah Creek Watershed is a complex site, laden with contamination borne of many years of industrial activity and associated pollution.

While it is true that the Tar Ponds area has been studied in the past, there are still a few acknowledged gaps in that data. In addition, the Coke Ovens sites have not been thoroughly examined from a technical perspective: there is 'little to no' existing data with which to work on these Coke Ovens sites.

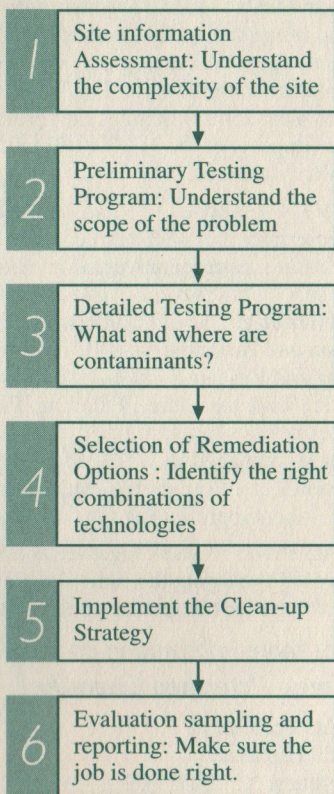
## Taking a step-wise approach...

Before any environmental clean-up project of this size and complexity can be completed, a number of steps must be followed to make sure that all the environmental and health factors are examined in a methodical and thorough manner. Each of the separate steps is an important part of the bigger picture.

### *The step-by-step approach to the clean up the Muggah Creek Watershed\**

*\*As per the approach to decommissioning industrial sites endorsed by Canadian Council of the Ministers environment (CCME):*

We are following this step-wise process because it ensures that we are doing our projects in a logical order, however, we have also built some flexibility into the process to allow us to respond to urgent community concerns when necessary. Also because there are different amounts of information already available regarding the different sites in the watershed, we are working on some projects simultaneously.





## **For example, we have already completed several items which will fit into the overall site assessment:**

- **Vendor Protocol:** a vendor protocol framework was developed to help ROWG systematically and objectively sift through the numerous requests from environmental technology firms who wish to try their clean-up methods at the Tar Ponds and Coke Ovens sites.
- **Leachate Analysis:** an initial study of the site gathered information of the MAID regarding the contaminants in the landfill-based liquids (or leachate) from the site and onto the Coke Ovens site and beyond.
- **Interceptor Sewer Pre-design:** the initial plans for a diversion system have been developed to divert municipal sewage away from the site.
- **Coke Ovens Site Analysis:** detailed sampling of soil and the contents of various structures was completed to identify possible environmental health risks to workers and the surrounding community, prior to the removal of structures from the site.
- **A QA/QC Protocol:** a series of policies as to the minimum data quality standards to be met on all JAG projects.
- **Phase 1 Site assessment:** gathering of all the existing information relating to the Sites and setting the direction for the subsequent steps prior to actual remediation.
- **A geophysical assessment** to map the underground structures, which we will need to deal with and evaluated for the presence of contaminant, plumes on the Coke Ovens sites.

## **Where we're heading...**

- **Launching and completing the Phase 2 and 3 Site Assessment** in order to obtain a detailed knowledge of all the Sites' contaminants.
- **Implementing the Interim Measures** and setting up all the Sites' "infrastructure" as defined in our goals.

## **In the know...**

We believe that in order for us to continue to contribute in a meaningful way, it is important to build knowledge and capacity within ourselves and the community. We are helping to do this by participating in technical conferences, and by organizing regular technical presentations for ourselves and the public.

# What is JAG?

Created in the fall of 1996, the Joint Action Group (JAG) is an innovative community-driven process: a group of individuals working together with the goal of remediating the Muggah Creek Watershed, one of Canada's most toxic sites. Beyond the original perceived need to find a solution to the Sydney Tar Ponds, JAG's mandate is much broader. It also includes the former Coke Ovens sites and the impacts of the MAID - all part of the Muggah Creek Watershed area.

JAG is comprised of local residents, business people and representatives of the three levels of government, First Nation's representatives, and youth. JAG's infrastructure is made up of several working groups 'and' standing subcommittees: Health Studies, Site Security, Public Education and Participation (PEP), Environmental Data Gathering and Research (EDGAR), Remedial Options, Governance, and, the Ethics, Planning, Financial and Human Resources subcommittees. JAG is supported by a Secretariat, managed by a Steering Committee and reports overall to a Roundtable, which is made up of some 50 members representing the community.

JAG strives to work together as one community, one "voice", merging the individual interests of all those involved for the greater good of the community.

*For more information on the JAG or the Muggah Creek Watershed Clean-Up:*

JAG Secretariat  
320 Esplanade  
Sydney, NS B1P 7B9  
(902) 563-5584 or visit [www.muggah.org](http://www.muggah.org)